CDP-561/561E

SERVICE MANUAL

AEP Model
CDP-561
UK Model
CDP-561E

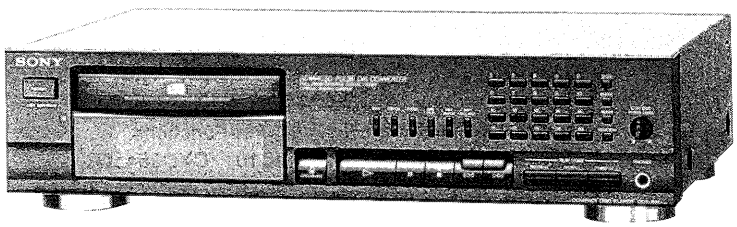

Photo : CDP-561

Model Name Using Similar Mechanism	CDP-715/715E
CD Mechanism Type	CDM25D-5BD20
Base Unit Type	BU-5BD20
Optical Pick-up Type	KSS-213BA

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser
Wavelength	780 – 790 nm
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 108 dB
Dynamic range	More than 99 dB
Harmonic distortion	Less than 0.0027%
Channel separation	More than 103 dB

Outputs

	Jack type	Maximum output level	Load impedance
LINE OUT (FIXED)	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms
LINE OUT (VARIABLE)	Phono jacks	2 V (at 50 kilohms)	Over 50 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
PHONES	Stereo phone jack	10 mW	32 ohms

General

Power requirements	220 V – 230 V AC, 50/60 Hz
Power consumption	13 W
Dimensions (approx.) (w/h/d)	430 × 110 × 295 mm (17 × 4 3/8 × 11 5/8 in.) incl. projecting parts
Mass (approx.)	3.8 kg (8 lbs 4 oz)

Supplied accessories

Audio cord (2 phono plugs – 2 phono plugs) (1)
Remote commander (remote) (1)
Sony SUM-3 (NS) batteries (2)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

SONY

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

The following caution label is located inside the unit.

CAUTION	:	INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ADVARSEL:		USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING
VARO!	:	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSÄTEILYLLE.
VARNING	:	LASERSTRÅLING NÄR DENNA DEL AR OPPNÅD OCH SPARREN ÄR URXOPPLAD
ADVERSEL:		USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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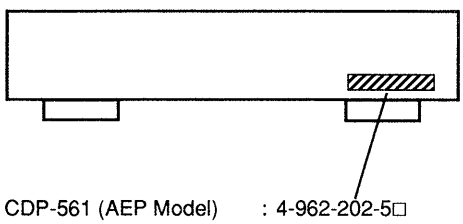
MODEL IDENTIFICATION

— BACK PANEL —



CDP-561 (AEP Model) : 4-962-202-5□
CDP-561 (German Model) : 4-962-202-6□
CDP-561E (UK Model) : 4-962-202-7□

SECTION 1
SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

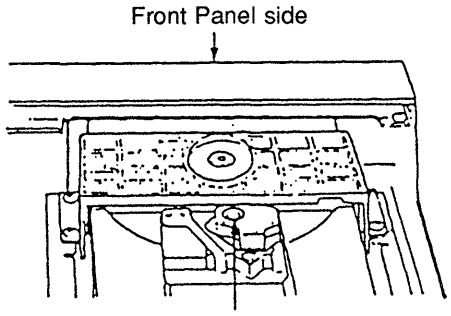
The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repain parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.

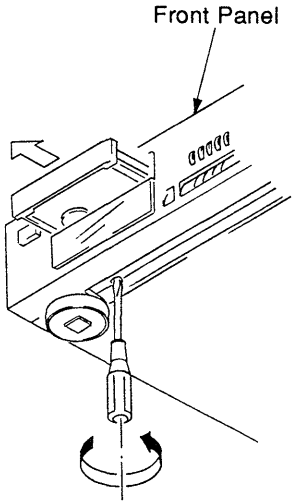


❶ Confirm that laser beam is spread.
❷ Up and down motion of the objective lens. (3 times)

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

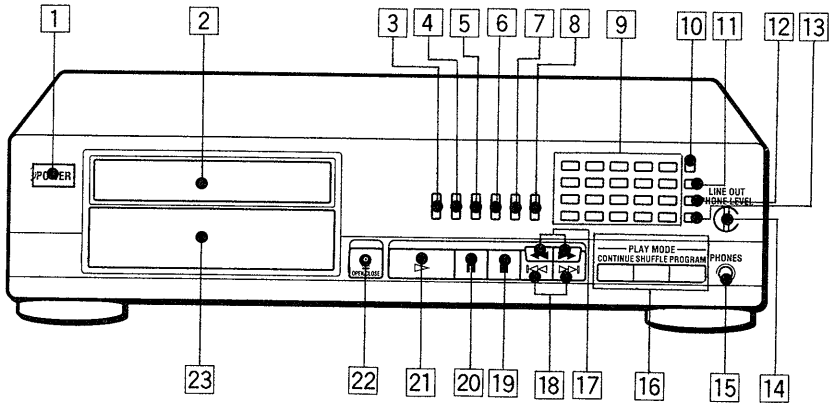
Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow.

* To close the disc tray, turn the driver in the reverse direction.

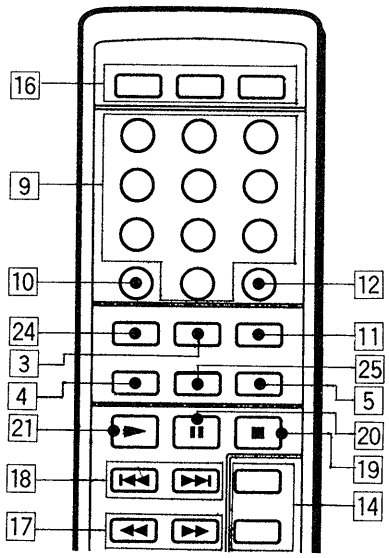


SECTION 2
GENERAL

Identifying the Parts



RM-D820



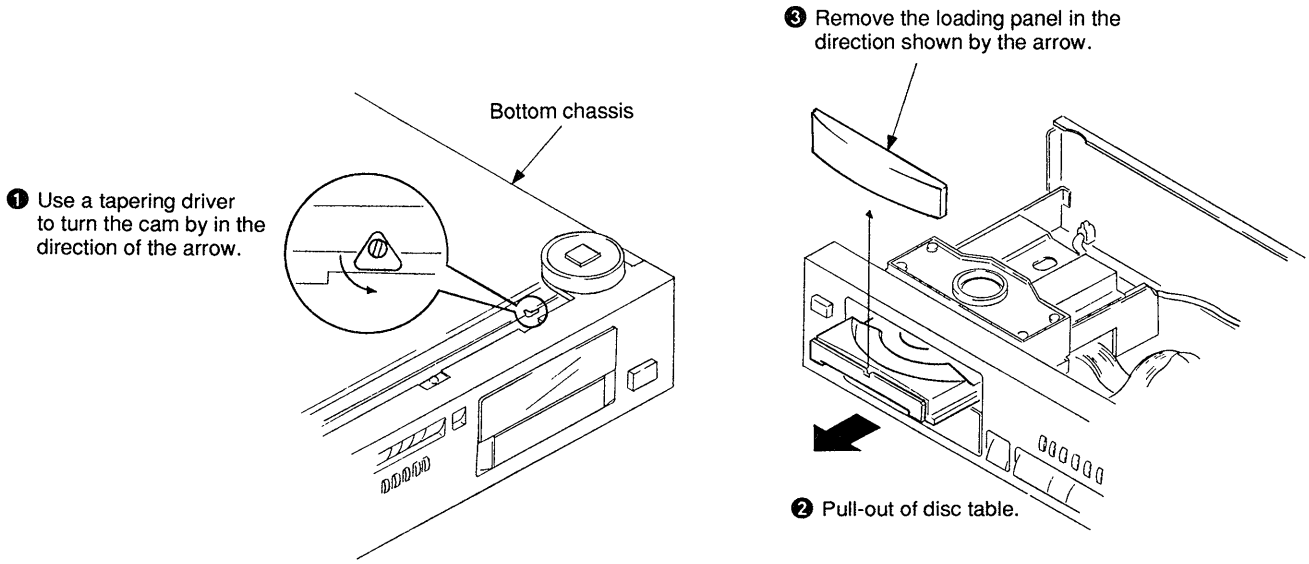
1 Power switch
2 Disc tray
3 TIME button
4 REPEAT button
5 FADER button
6 AUTO SPACE button
7 PEAK SEARCH button
8 EDIT/TIME FADE button
9 Number buttons
10 >20 (over 20) button
(>10 (over 10) button on the remote commander)
11 CHECK (Program check) button
12 CLEAR (Program clear) button
13 MUSIC SCAN button
14 LINE OUT/PHONE LEVEL control
(LINE OUT LEVEL +/- buttons on the remote commander)
15 PHONES jack
16 Play mode buttons
CONTINUE button
SHUFFLE button
PROGRAM button
17 ◄◄/►► (manual search) buttons
18 ⏮/⏭ (AMS*) buttons
19 ■ (stop) button
20 ❚❚ (pause) button
21 ▷ (play) button
22 ⏏ OPEN/CLOSE button
23 Display
24 DISPLAY OFF button
25 A ↔ B button

* AMS is the addreviation of Automatic Music Sensor.

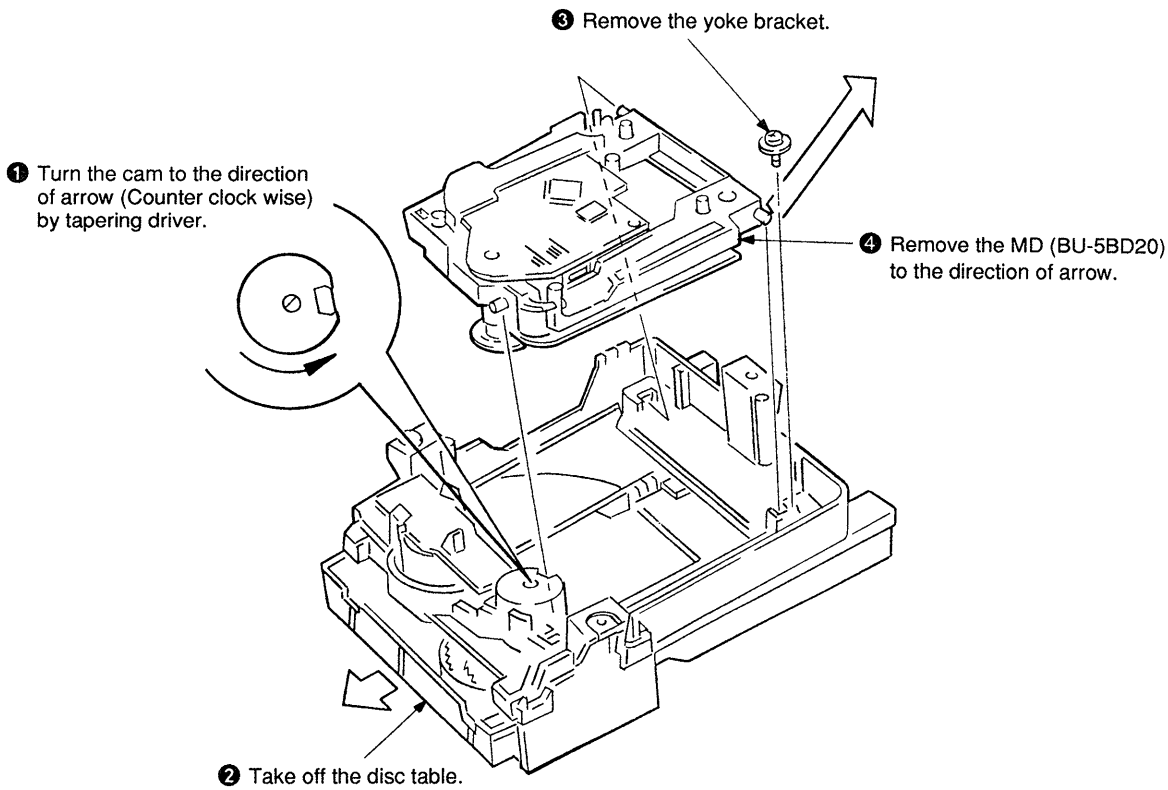
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

3-1. LOADING PANEL


❸ Remove the loading panel in the direction shown by the arrow.
Bottom chassis
❶ Use a tapering driver to turn the cam by in the direction of the arrow.
❷ Pull-out of disc table.

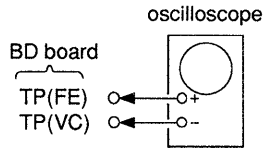
3-2. MD (BU-5BD20) BLOCK


❸ Remove the yoke bracket.
❶ Turn the cam to the direction of arrow (Counter clock wise) by tapering driver.
❹ Remove the MD (BU-5BD20) to the direction of arrow.
❷ Take off the disc table.

SECTION 4
ELECTRICAL BLOCK CHECKING

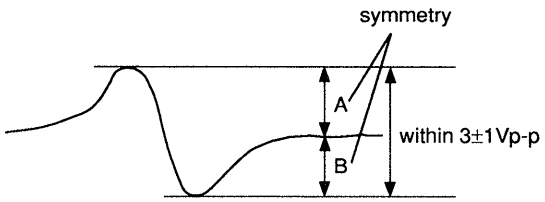
Note :
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1Vp-p.

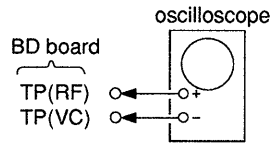
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

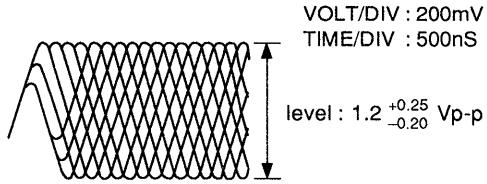


Procedure :
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

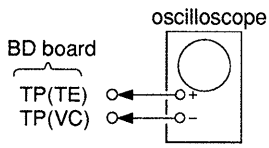
Note :

A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform

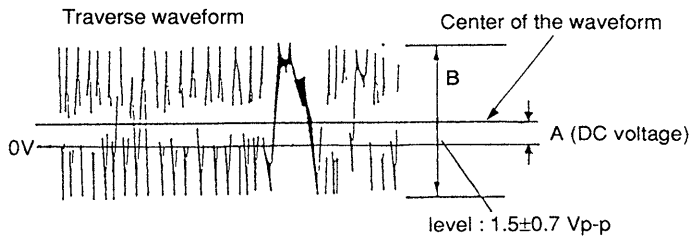


E-F Balance Check



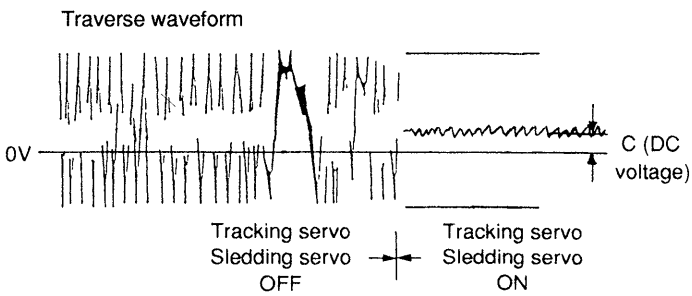
Procedure :
1. Connect test point TP (ADJ) to ground with lead wire.
2. Connect oscilloscpe to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the CHECK button. (The tracking servo and the sledding servo are turned OFF.)
6. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform. Confirm the following :
A/B x 100 = less than ± 20%.

Traverse waveform



7. Press the CLEAR button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) in step 6.

Traverse waveform

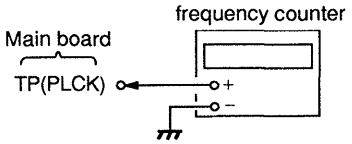


8. Disconnect the laed wire of TP (ADJ) connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

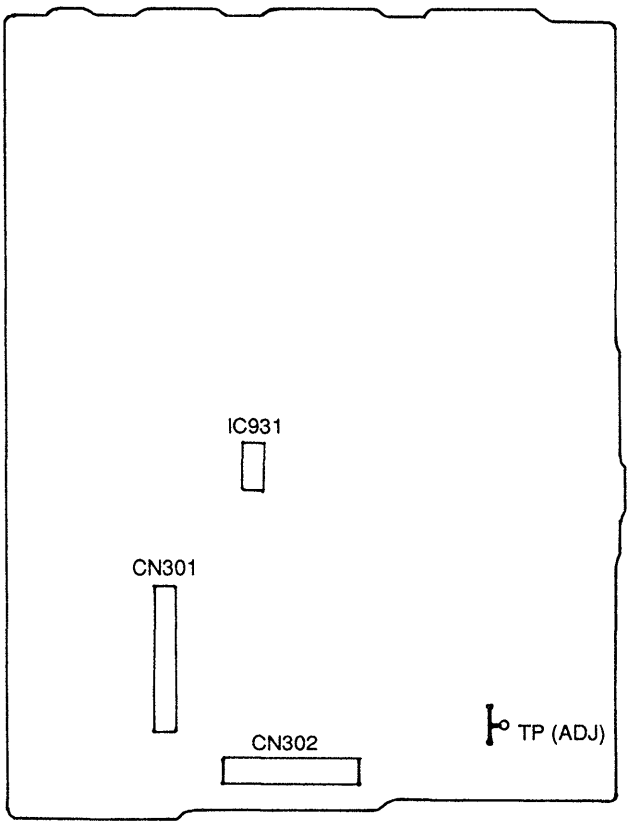
1. Connect frequency counter to test point (PLCK) with lead wire.



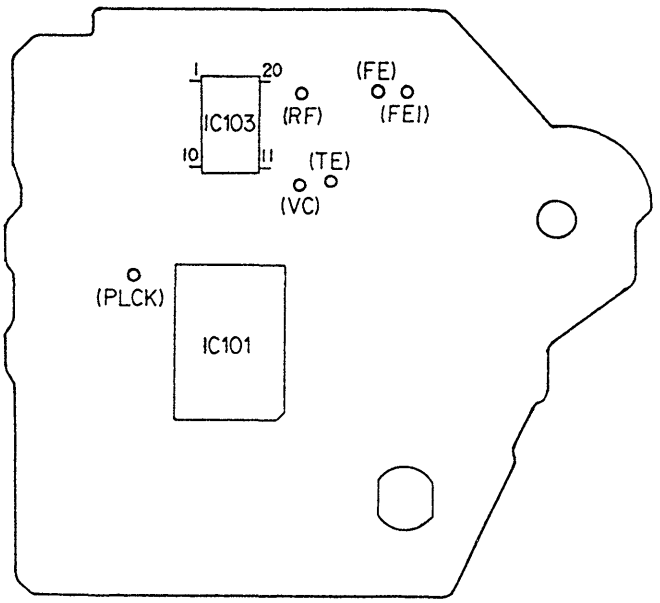
2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

[MAIN BOARD] — Component Side —



[BD BOARD] — SIDE A —



SECTION 5
DIAGRAMS

5-1. IC PIN FUNCTIONS

- **IC101 (CXD2545Q)**

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled drive output (Not used)
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output (Not used)
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output (Not used)
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output (Not used)
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output (Not used)
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output (Not used)
12	VCOO	O	VCO output for analog EFM PLL (Not used)
13	VCOI	I	VCO output for analog EFM PLL (GND)
14	TEST	I	TEST pin connected normally to GND
15	DVss	–	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL (Not used)
19	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
20	VCKI	I	Clock input from variable pitch external VCO (GND)
21	AVD2	–	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	–	Analog GND
24	ADIO	I	(Not used)
25	RFC	O	(Not used)
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	–	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry comparate voltage input
39	ASYO	O	EFM full swing output
40	AVD1	–	Analog power supply

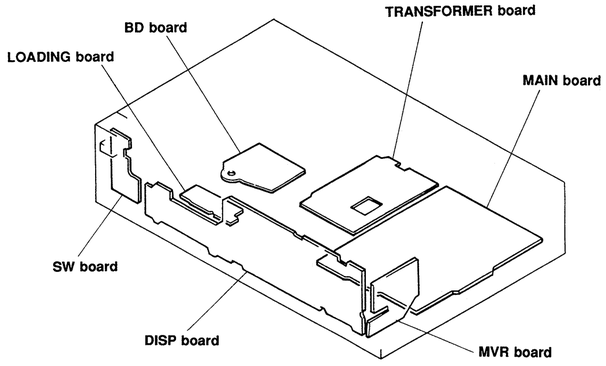
Pin No.	Pin Name	I/O	Function
41	DVDD	–	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. Word clock
45	LRCK	O	48-bit slot D/A interface. LR clock
46	DATA	O	DA 16 output when PSSL=1. 48-bit slot serial data when PSSL=0
47	BCLK	O	DA 15 output when PSSL=1. 48-bit slot data when PSSL=0
48	64DATA	O	DA 14 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
49	64BCLK	O	DA 13 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
50	64LRCK	O	DA 12 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
51	GTOP	O	DA 11 output when PSSL=1. GTOP output when PSSL=0 (Not used)
52	XUGF	O	DA 10 output when PSSL=1. XUGF output when PSSL=0 (Not used)
53	XPLCK	O	DA 09 output when PSSL=1. XPLCK output when PSSL=0
54	GFS	O	DA 08 output when PSSL=1. GFS output when PSSL=0
55	PFCK	O	DA 07 output when PSSL=1. RFCK output when PSSL=0
56	C2PO	O	DA 06 output when PSSL=1. C2PO output when PSSL=0 (Not used)
57	XRAOF	O	DA 05 output when PSSL=1. XRA0F output when PSSL=0
58	MNT3	O	DA 04 output when PSSL=1. MNT3 output when PSSL=0
59	MNT2	O	DA 03 output when PSSL=1. MNT2 output when PSSL=0
60	MNT1	O	DA 02 output when PSSL=1. MNT1 output when PSSL=0
61	MNT0	O	DA 01 output when PSSL=1. MNT0 output when PSSL=0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output (Not used)
64	XTSL	I	X'tal selection input pin (GND)
65	DVss	–	Digital GND
66	FSTI	I	2/3 divider output of pins 62, 63
67	FSTO	O	2/3 divider output of pins 62, 63
68	FSOF	O	(Not used)
69	C16M	O	16.9344 MHz output (Not used)
70	MD2	I	Digital-out ON/OFF control pin (+5V)
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode (Not used)
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output (Not used)
76	EXCK	I	Clock input for SBS0 read-out (GND)
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQS0 read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode (+5V)
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin (GND)
85	ATSK	I	Input pin for anti-shock (GND)

Pin No.	Pin Name	I/O	Function
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU
89	COUT	O	Numbers of track counted signal output (Not used)
90	DV_{DD}	–	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter (Not used)
95	MON	O	Output to control ON/OFF of spindle motor (Not used)
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo (Not used)
98	LOCK	O	GFS is sampled by 460 Hz. H when GFS is H (Not used)
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

- **IC801 (CXP82316-055Q)**

Pin No.	Pin Name	I/O	Function
1	TIMER	–	Connected to +5V.
2	RM (BUSIN)	I	Audio bus input.
3	+5V	–	Connected to +5V.
4	OPEN	–	Not used. (open)
5	OPEN	–	
6	(BUS-OUT)	–	
7	PRGL	O	Latch signal output to digital filter (IC303).
8	CLK	O	Serial clock output.
9	SENSE	I	SENSE signal input.
10	DATA	O	Serial data output.
11	SQCK	O	Read out clock output for subcode Q data.
12	SUBQ	I	Subcode Q data input.
13	OPEN	–	Not used. (open)
14	AMUTE	O	Analog muting control signal output.
15	LDON	O	Optical pickup laser diode control output.
16	XLT	O	Serial data latch signal output.
17	OPEN	–	Not used. (open)
18	RV+	O	Remote commander volume +.
19	RV–	O	Remote commander volume –.
20	LDOUT	O	Loading motor control signal output.
21	LDIN	O	
22 to 27	KEY0 to KEY5	I	Key input. (S801 to S841)
28	ADJ/AFADJ	–	ADJ, AFJ test pin.
29	IN/OUTSW	I	Loading IN/OUT switch input.
30	RST	I	Reset signal input.
31	EXTAL	I	Clock input. (4 MHz)
32	XTAL	O	Clock output. (4 MHz)
33	Vss	–	GND
34 to 41	OPEN	–	Not used. (open)
42 to 62	SEG1 to SEG21	O	FL segment output.
63 to 70	1G to 8G	O	FL grid output.
71	VFDP (–30V)	–	–30V pin for FL display tube.
72	V_{DD} (+5V)	–	+5V pin.
73	——	–	
74	SEL1	–	Connected to GND.
75	IN PORT	–	Connected to +5 V.
76	IN PORT	–	
77	IN PORT	–	
78	SCOR	I	Read out timing signal input for subcode Q data.
79	SEL2	–	Connected to GND.
80	SEL3	–	Connected to GND.

5-2. CIRCUIT BOARDS LOCATION



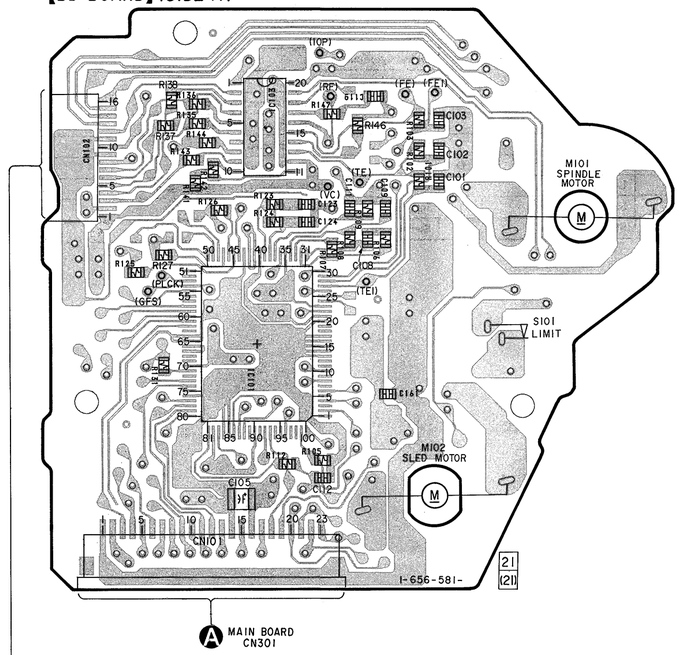
• **Semiconductor Location**

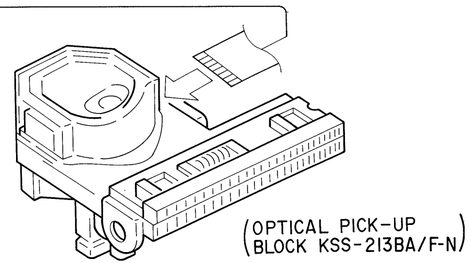
Ref. No.	Location
IC101	C-2
IC102	C-7
IC103	B-2
Q101	A-8

Note:
- ○—— : parts extracted from the components side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▨ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

5-3. PRINTED WIRING BOARD — BD SECTION —

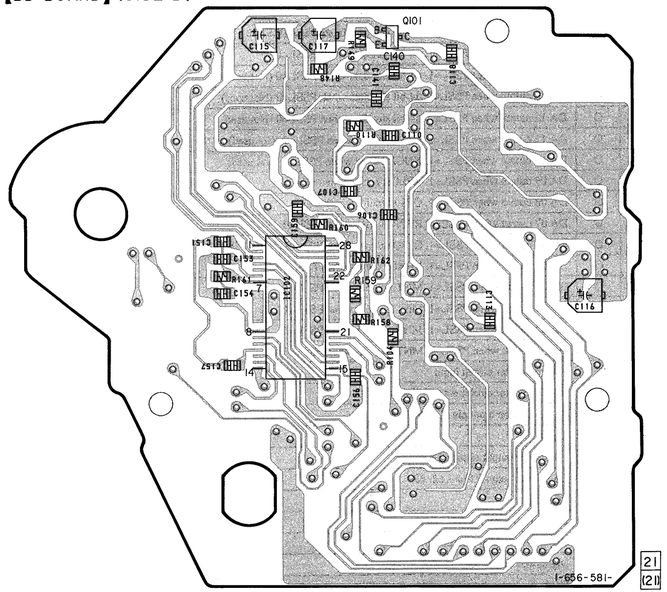
【BD BOARD】(SIDE A)





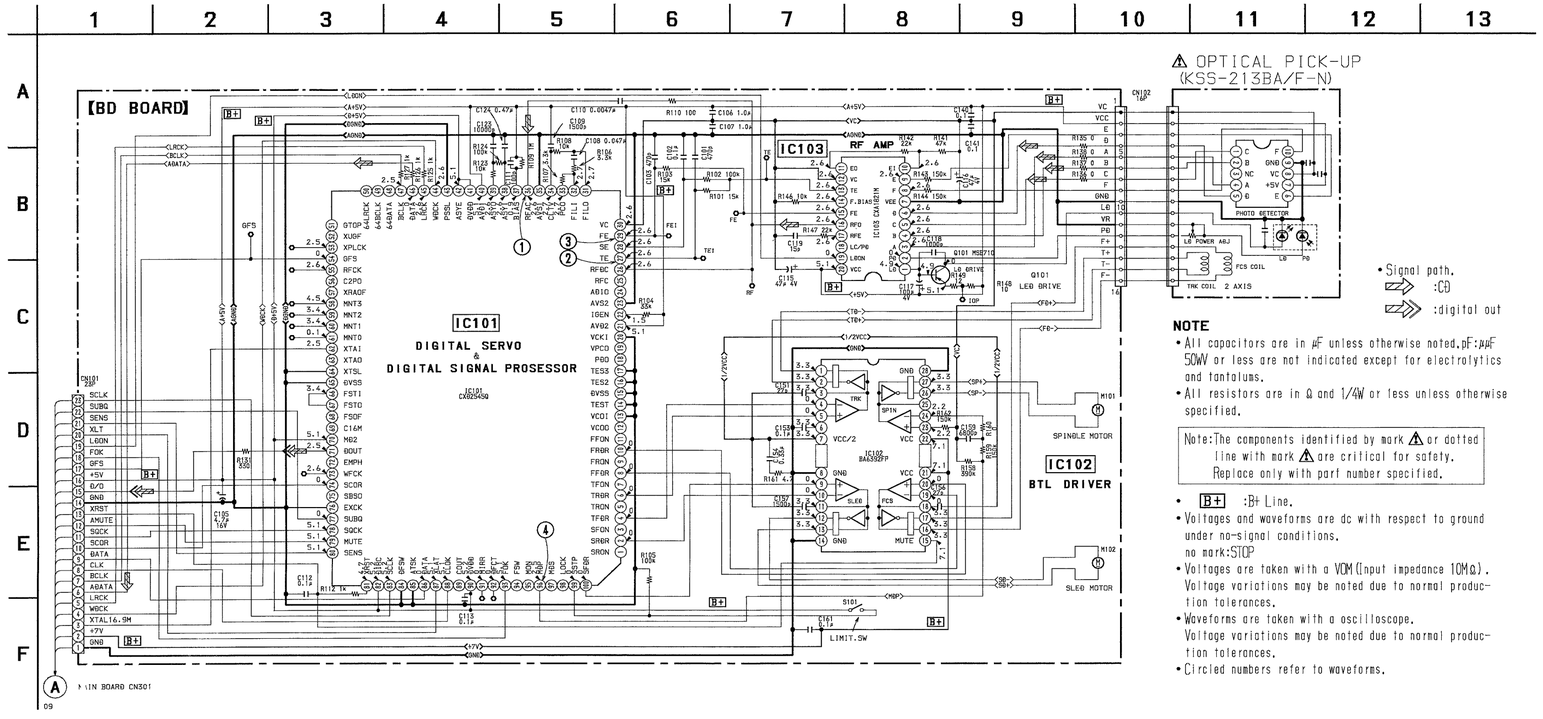
09

【BD BOARD】(SIDE B)



5-4. SCHEMATIC DIAGRAM — BD SECTION —

• See page 8 for IC Pin Function. (IC101)



NOTE

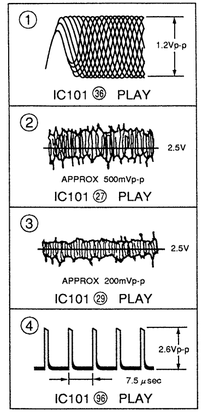
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

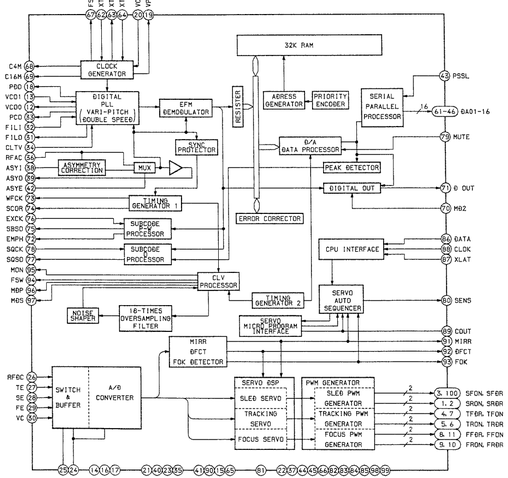
• Signal path.
:CD
:digital out

• Waveformes

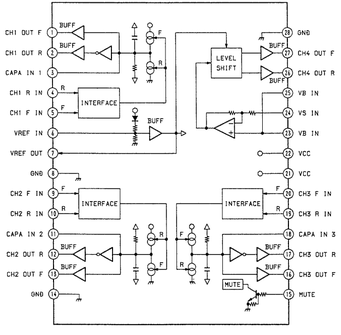


• IC Block Diagrams

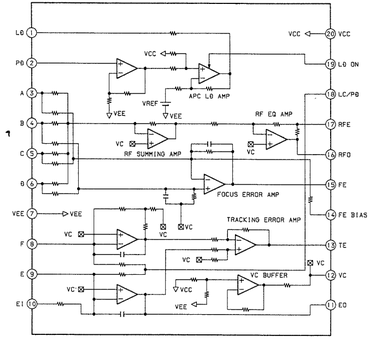
IC101 CXD2545Q



IC102 BA6392FP

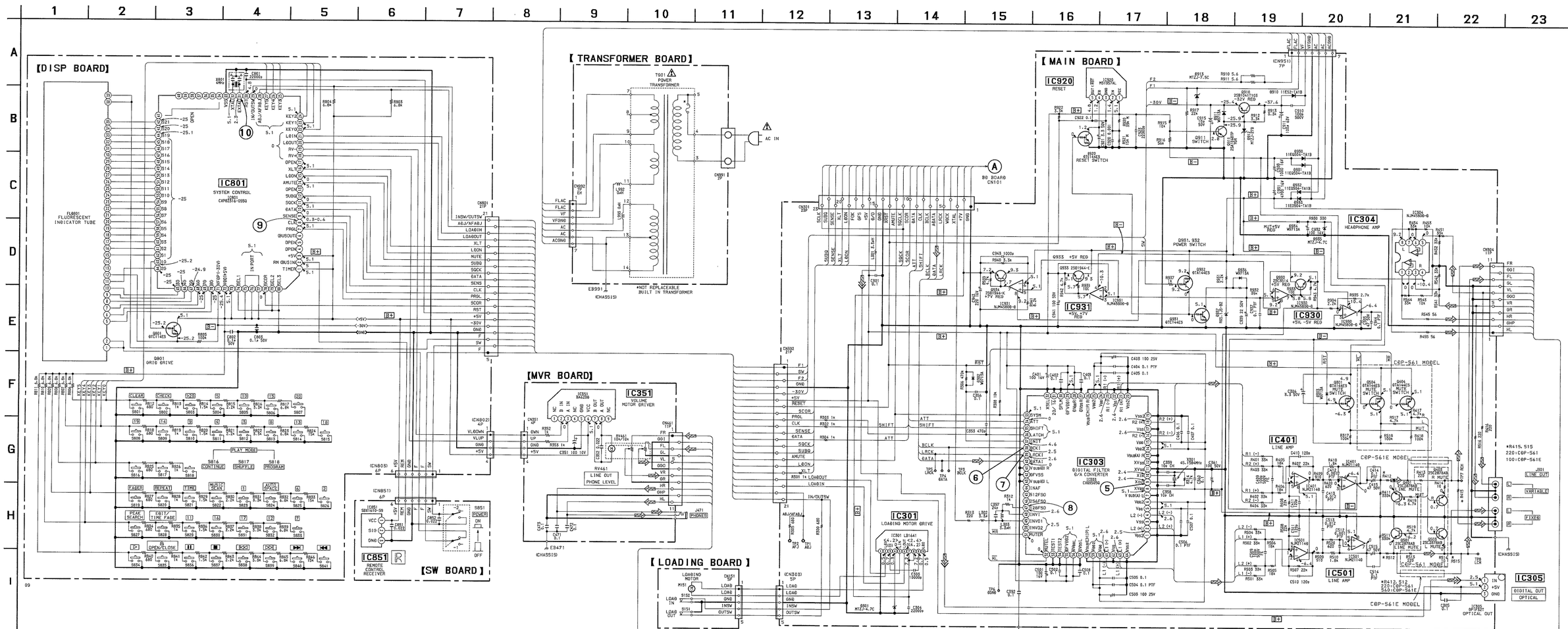


IC103 CXA1821M



5-5. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 11 for IC Pin Function. (IC801)



NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : Internal component.
- ▭ : Panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- [B+] : B+ Line.
- [B-] : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: STOP
  ( ): LOAD OUT
  < >: LOAD IN
- Voltages are taken with a VOM (input impedance 10MΩ) Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD
  ⇨ : Digital out

• Waveformes

⑤ 45.1584 MHz, 0.44Vp-p — IC303 ③

⑧ 0.18 μ sec, 5.6Vp-p — IC303 ㊼

⑥ 0.48 μ sec, 4.8Vp-p — IC303 ㊳

⑨ 1.6 μ sec, 6Vp-p — IC801 ⑥ PLAY

⑦ 23 μ sec, 5.3Vp-p — IC303 ㊴

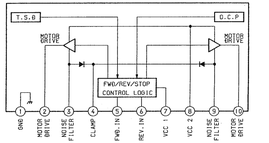
⑩ 4MHz, 5.2Vp-p — IC801 ㉛

• Semiconductor Location

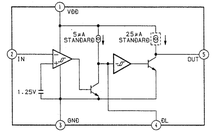
Ref. No.	Location
D301	G-6
D302	F-2
D303	D-5
D910	E-6
D911	G-6
D912	F-6
D913	F-6
D930	E-5
D931	E-5
D932	F-5
D933	F-5
D934	D-5
D935	C-5
D936	D-4
D937	E-4
IC301	G-6
IC303	E-3
IC304	D-5
IC305	B-2
IC351	B-8
IC401	C-3
IC501	C-4
IC801	G-14
IC851	D-19
IC920	G-1
IC930	D-5
IC931	F-4
Q301	C-5
Q401	B-2
Q403	B-2
Q404	F-2
Q501	C-5
Q503	C-5
Q504	F-2
Q801	H-19
Q910	F-5
Q911	G-5
Q920	G-2
Q930	D-4
Q931	E-4
Q932	G-5
Q933	F-4
Q934	F-4

• IC Block Diagrams

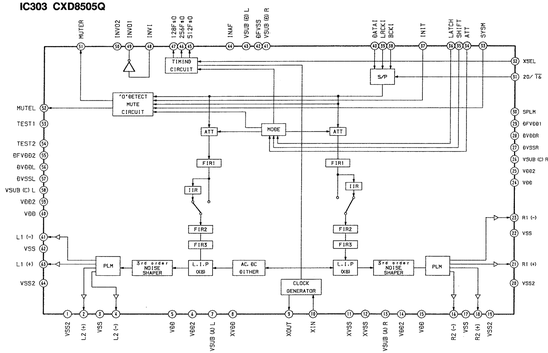
IC301 LB1641



IC920 M51957AL

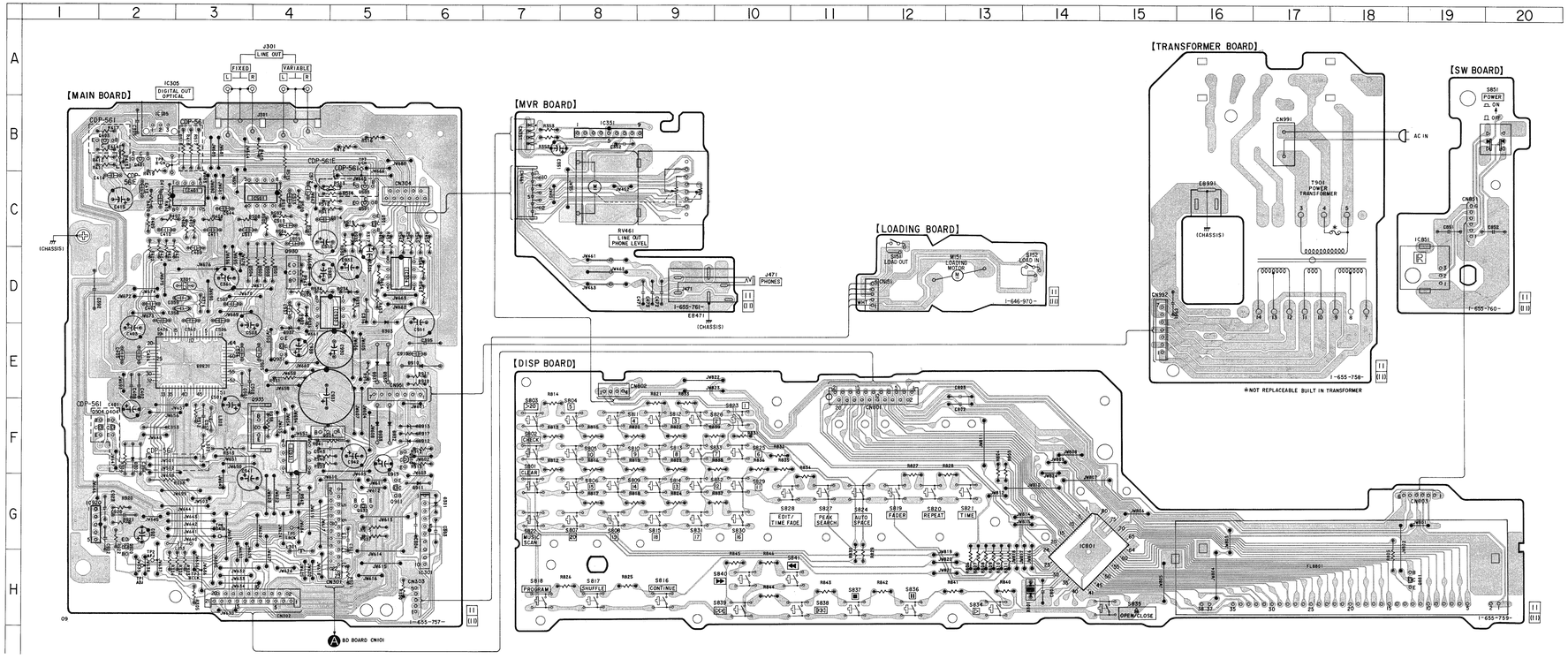


IC303 CXD8505Q



5-6. PRINTED WIRING BOARD — MAIN SECTION —

• See page 12 for Circuit Boards Location.



Note:

- ○—— : parts extracted from the components side.
- —+— : Denotes that Jumper wire works as Test Point.
- ▒▒ : Pattern from the side which enable seeing.

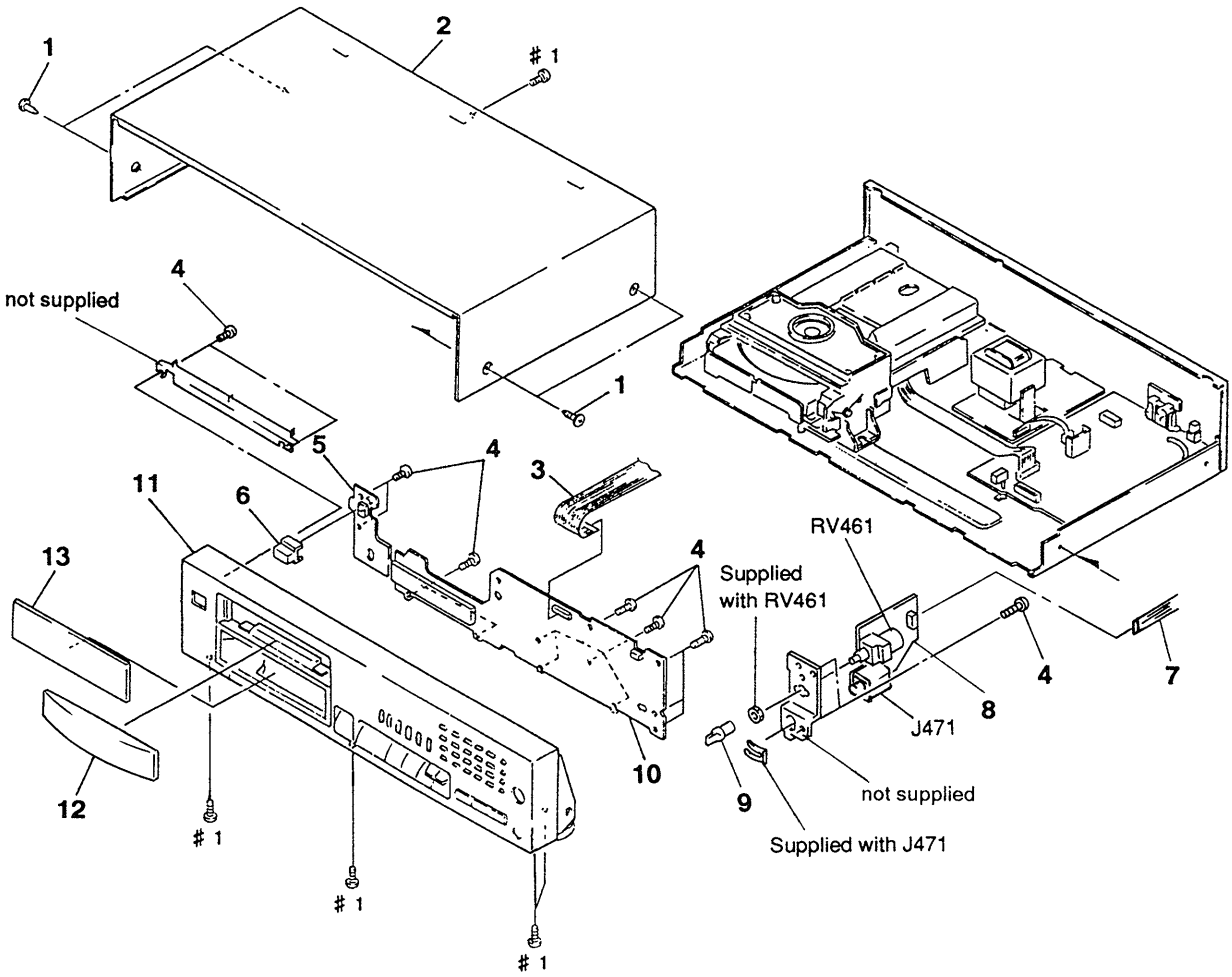
SECTION 6
EXPLODED VIEWS

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  G : German model

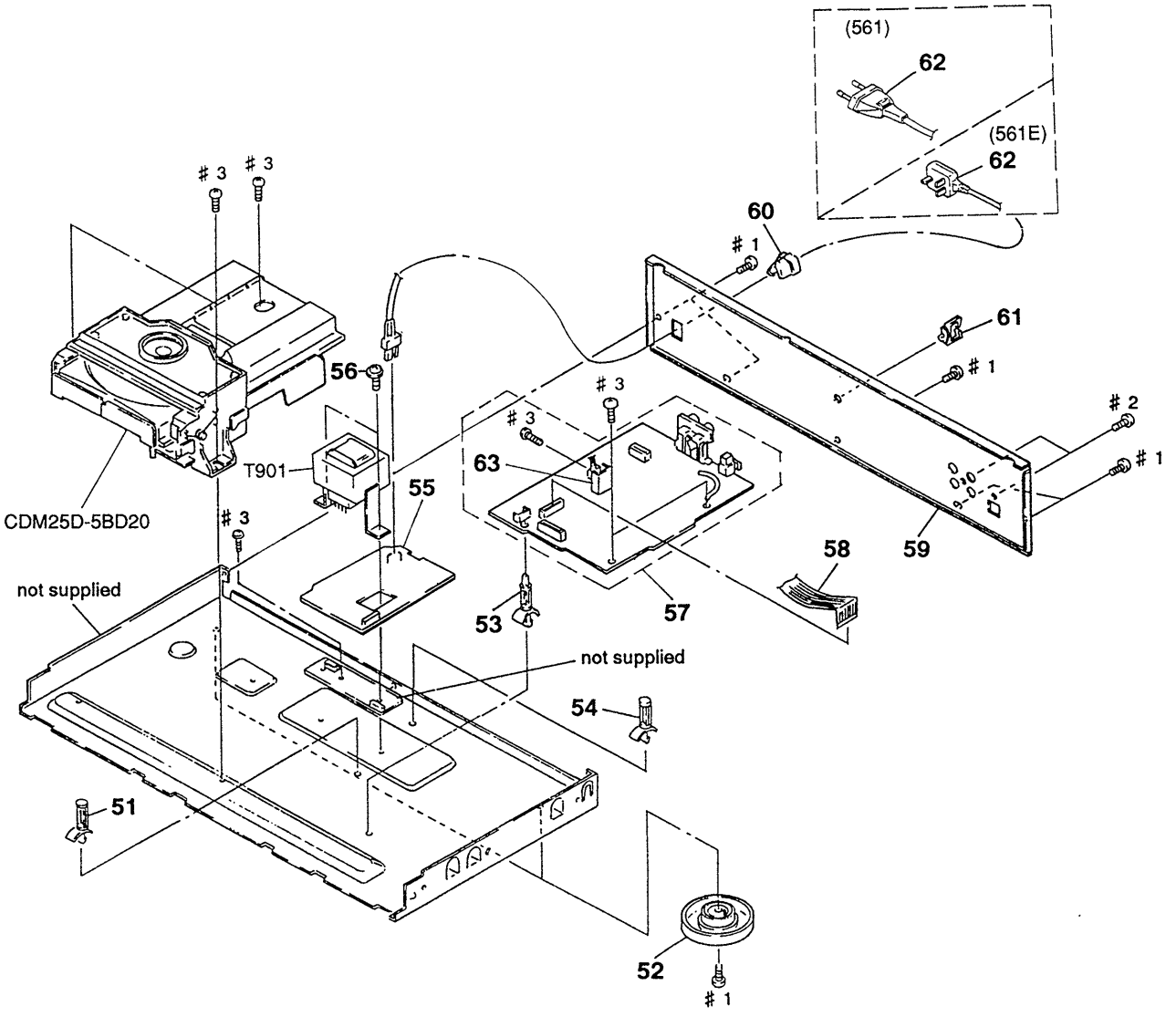
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CASE AND FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-01	SCREW (CASE 3 TP2)	
2	4-937-817-01	CASE	
3	1-751-947-11	WIRE (FLAT TYPE) (21 CORE)	
4	4-951-620-01	SCREW (2.6X8), +BVTP	
* 5	1-655-760-11	SW BOARD	
6	4-947-034-01	BUTTON (POWER)	
7	1-751-712-11	WIRE (FLAT TYPE) (11 CORE)	
* 8	1-655-761-11	MVR BOARD	
9	4-950-189-01	KNOB (A) (VOL)	
* 10	A-4673-498-A	DISP BOARD, COMPLETE	
11	X-4945-692-1	PANEL ASSY, FRONT (561E)	
11	X-4945-975-1	PANEL ASSY, FRONT (561)	
12	4-971-681-01	PANEL, LOADING	
13	4-962-199-01	PLATE, INDICATION	
J471	1-750-162-61	JACK (LARGE TYPE) (PHONES)	
RV461	1-223-875-11	RES, VAR, CARBON 10K/10K (LINE OUT, PHONE LEVEL)	

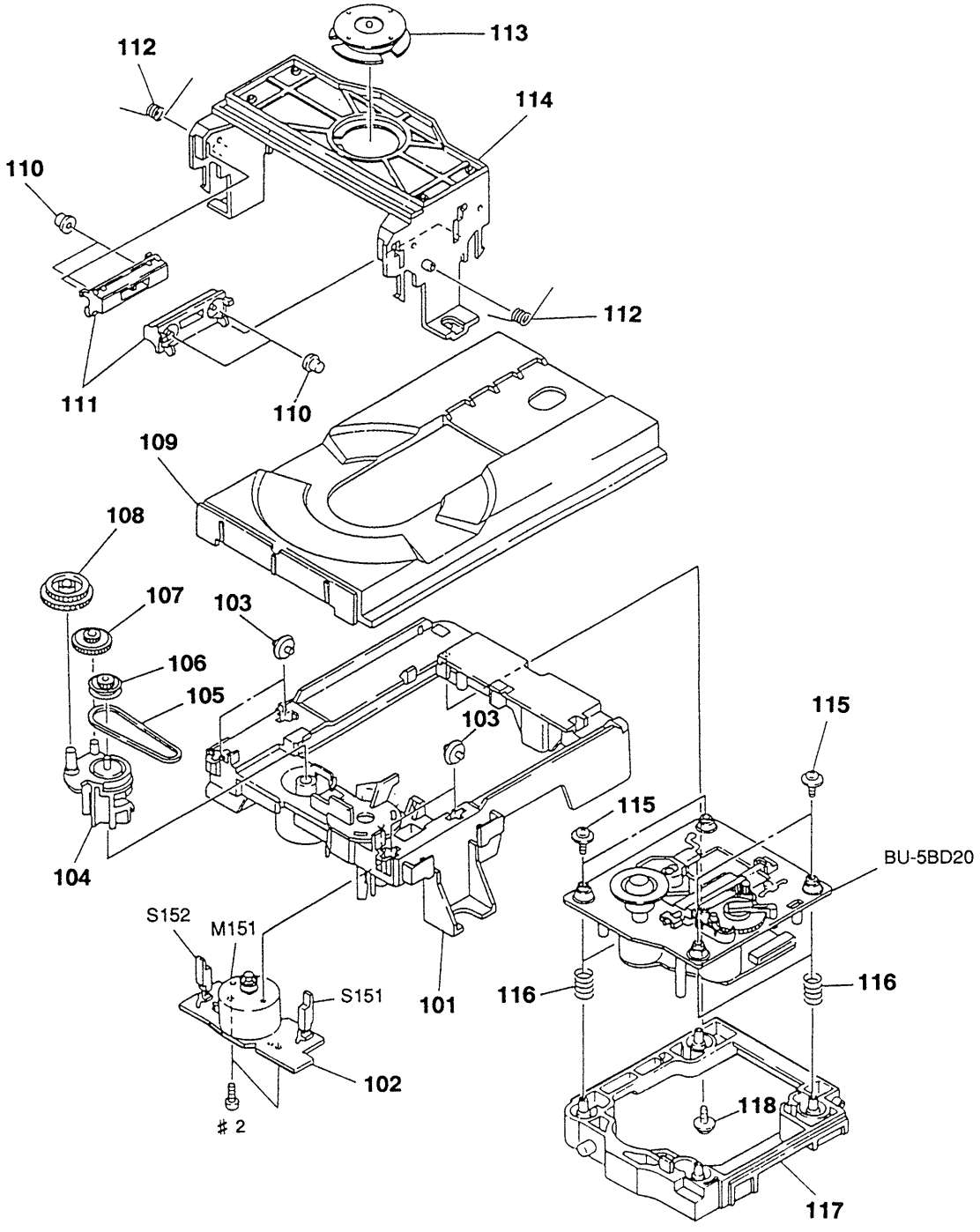
6-2. CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

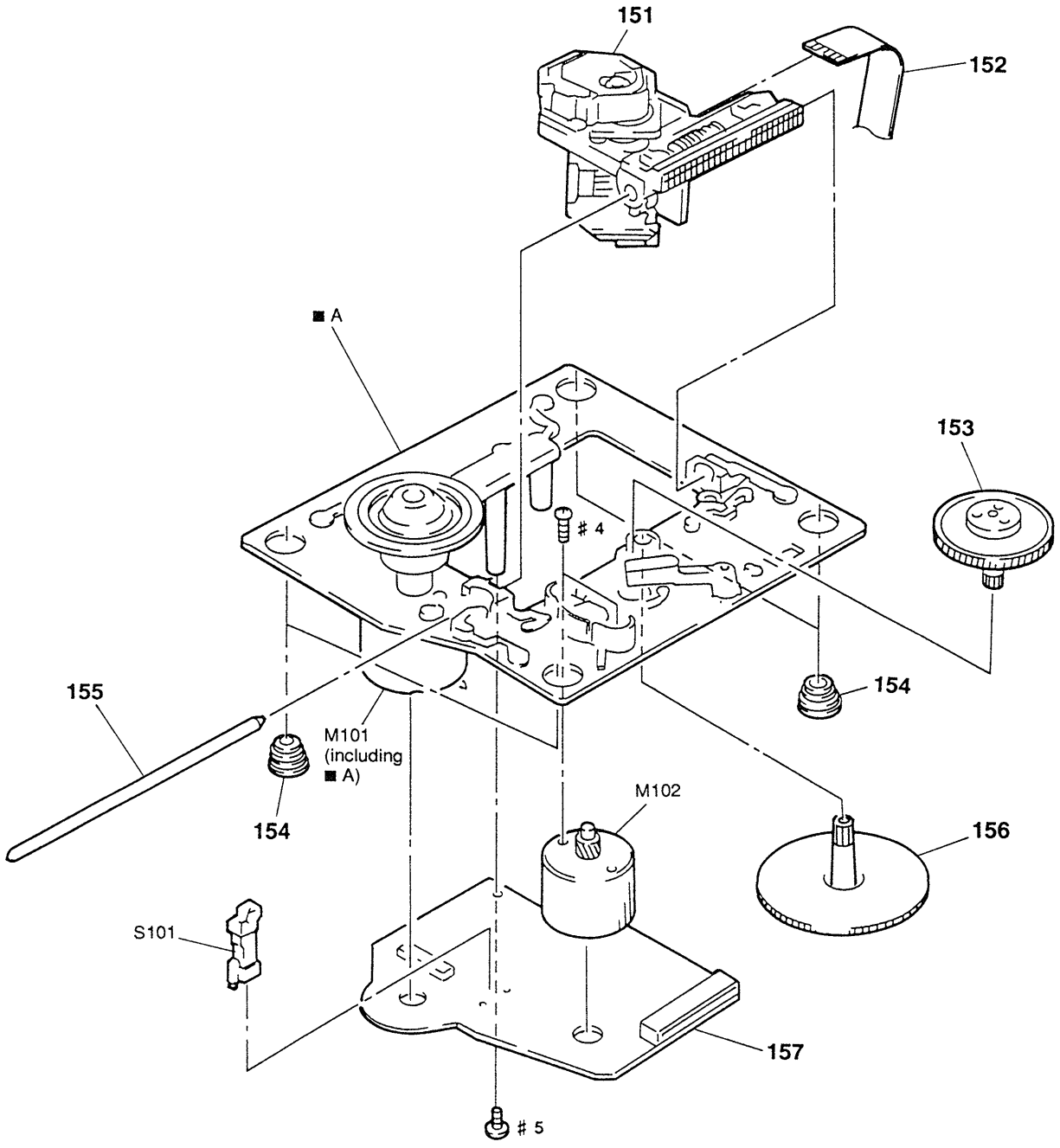
Ref. No.	Part No.	Description	Remark
* 51	4-944-316-01	HOLDER, PC BOARD	
52	4-956-885-11	FOOT (F58175S2W)	
* 53	4-924-098-31	HOLDER, PC BOARD	
* 54	3-349-025-41	HOLDER, PC BOARD	
* 55	1-655-758-11	TRANSFORMER BOARD	
56	2-383-566-00	SCREW	
* 57	A-4673-497-A	MAIN BOARD, COMPLETE (561)	
* 57	A-4673-568-A	MAIN BOARD, COMPLETE (561E)	
58	1-696-760-11	WIRE (FLAT TYPE) (23 CORE)	
* 59	4-962-202-51	PANEL (AL), BACK (561:AEP)	
* 59	4-962-202-63	PANEL (AL), BACK (561:G)	
* 59	4-962-202-71	PANEL (AL), BACK (561E)	
60	3-703-244-00	BUSHING, CORD	
* 61	3-681-263-11	SADDLE, WIRE	
⚠62	1-575-651-21	CORD, POWER (561)	
⚠62	1-696-907-11	CORD, POWER (561E)	
* 63	3-309-144-21	HEAT SINK	
⚠T901	1-449-925-11	TRANSFORMER, POWER	

6-3. MECHANISM SECTION (CDM25D-5BD20)



Ref. No.	Part No.	Description	Remark
* 101	4-954-190-01	BASE (MD)	
* 102	1-646-970-11	LOADING BOARD	
103	4-954-193-01	ROLLER (A)	
104	4-933-109-01	CAM	
105	4-927-649-01	BELT	
106	4-927-651-01	PULLEY (S)	
107	4-967-268-01	GEAR (C)	
108	4-933-107-01	GEAR (PL)	
109	4-961-794-11	TABLE, DISC	
110	4-954-194-01	ROLLER (B)	
111	4-954-199-01	PLATE, SLIDE	
112	4-954-195-01	SPRING, TORSION	
* 113	1-452-538-11	MAGNET	
* 114	4-954-192-11	HOLDER (M)	
115	4-933-134-01	SCREW +PTPWH M2.6X6	
116	4-959-996-01	SPRING (932), COMPRESSION	
117	4-933-129-01	HOLDER (BU)	
* 118	4-917-583-21	BRACKET, YOKE	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
S151	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S152	1-572-086-11	SWITCH, LEAF (LOAD IN)	

6-4. BASE UNIT SECTION (BU-5BD20)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
⚠151	8-848-367-11	OPTICAL PICK-UP BLOCK KSS-213BA/F-N	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
153	4-917-567-21	GEAR (M)	
154	4-951-940-01	INSULATOR (BU)	
155	4-917-565-01	SHAFT, SLED	
156	4-917-564-01	GEAR (P), FLATNESS	
157	A-4673-511-A	BD BOARD, COMPLETE	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 7
ELECTRICAL PARTS LIST

BD

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  G : German model

Ref. No.	Part No.	Description			Remark
*	A-4673-511-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V
C106	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C107	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-770-072-11	CONNECTOR (FFC) 23P			
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC CXD2545Q			
IC102	8-759-176-09	IC BA6392FP			
IC103	8-752-072-45	IC CXA1821M-T6			
		< MOTOR >			
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-00	METAL CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-00	METAL CHIP	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-00	METAL CHIP	1M	5%	1/10W
R110	1-216-025-91	METAL GLAZE	100	5%	1/10W
R112	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-00	METAL CHIP	100K	5%	1/10W
R125	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R126	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R127	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R135	1-216-295-91	CONDUCTOR, CHIP			(2012)
R136	1-216-295-91	CONDUCTOR, CHIP			(2012)
R137	1-216-295-91	CONDUCTOR, CHIP			(2012)
R138	1-216-295-91	CONDUCTOR, CHIP			(2012)
R141	1-216-089-00	METAL CHIP	47K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R143	1-216-101-00	METAL CHIP	150K	5%	1/10W
R144	1-216-101-00	METAL CHIP	150K	5%	1/10W
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W
R147	1-216-081-00	METAL CHIP	22K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	METAL GLAZE	12	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R160	1-216-295-91	CONDUCTOR, CHIP			(2012)
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W

BD DISP

Ref.No.	Part No.	Description				Remark
		< SWITCH >				
S101	1-572-085-11	SWITCH, LEAF (LIMIT)				
**********						
*	A-4673-498-A	DISP BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C801	1-161-494-00	CERAMIC	0.022uF			25V
C802	1-164-159-11	CERAMIC	0.1uF			50V
C803	1-164-159-11	CERAMIC	0.1uF			50V
		< CONNECTOR >				
CN801	1-568-838-11	SOCKET, CONNECTOR 21P				
		< FLUORESCENT INDICATOR >				
FLD801	1-519-757-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC801	8-752-863-44	IC CXP82316-055Q				
		< TRANSISTOR >				
Q801	8-729-900-80	TRANSISTOR DTC114ES				
		< RESISTOR >				
R803	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R804	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R805	1-249-441-11	CARBON	100K	5%	1/4W	
R806	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R807	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R808	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R809	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R810	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R811	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R812	1-249-415-11	CARBON	680	5%	1/4W	F
R813	1-249-417-11	CARBON	1K	5%	1/4W	F
R814	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R815	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R816	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R817	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R818	1-249-415-11	CARBON	680	5%	1/4W	F
R819	1-249-417-11	CARBON	1K	5%	1/4W	F
R820	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R821	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R822	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R823	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R824	1-249-431-11	CARBON	15K	5%	1/4W	
R825	1-249-415-11	CARBON	680	5%	1/4W	F
R826	1-249-417-11	CARBON	1K	5%	1/4W	F
R827	1-249-415-11	CARBON	680	5%	1/4W	F
R828	1-249-417-11	CARBON	1K	5%	1/4W	F
R829	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R830	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R831	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R832	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R833	1-249-431-11	CARBON	15K	5%	1/4W	
R834	1-249-415-11	CARBON	680	5%	1/4W	F
R835	1-249-417-11	CARBON	1K	5%	1/4W	F
R836	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R837	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R838	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R839	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R840	1-249-415-11	CARBON	680	5%	1/4W	F
R841	1-249-417-11	CARBON	1K	5%	1/4W	F
R842	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R843	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R844	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R845	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R846	1-249-431-11	CARBON	15K	5%	1/4W	
		< SWITCH >				
S801	1-554-303-21	SWITCH, TACTILE (CLEAR)				
S802	1-554-303-21	SWITCH, TACTILE (CHECK)				
S803	1-554-303-21	SWITCH, TACTILE (>20)				
S804	1-554-303-21	SWITCH, TACTILE (5)				
S805	1-554-303-21	SWITCH, TACTILE (10)				
S806	1-554-303-21	SWITCH, TACTILE (15)				
S807	1-554-303-21	SWITCH, TACTILE (20)				
S808	1-554-303-21	SWITCH, TACTILE (19)				
S809	1-554-303-21	SWITCH, TACTILE (14)				
S810	1-554-303-21	SWITCH, TACTILE (9)				
S811	1-554-303-21	SWITCH, TACTILE (4)				
S812	1-554-303-21	SWITCH, TACTILE (3)				
S813	1-554-303-21	SWITCH, TACTILE (8)				
S814	1-554-303-21	SWITCH, TACTILE (13)				
S815	1-554-303-21	SWITCH, TACTILE (18)				
S816	1-554-303-21	SWITCH, TACTILE (CONTINUE)				
S817	1-554-303-21	SWITCH, TACTILE (SHUFFLE)				
S818	1-554-303-21	SWITCH, TACTILE (PROGRAM)				
S819	1-554-303-21	SWITCH, TACTILE (FADER)				
S820	1-554-303-21	SWITCH, TACTILE (REPEAT)				
S821	1-554-303-21	SWITCH, TACTILE (TIME)				
S822	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)				
S823	1-554-303-21	SWITCH, TACTILE (1)				
S824	1-554-303-21	SWITCH, TACTILE (AUTO SPACE)				
S825	1-554-303-21	SWITCH, TACTILE (6)				
S826	1-554-303-21	SWITCH, TACTILE (2)				
S827	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)				

Ref.No.	Part No.	Description	Remark
S828	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)	
S829	1-554-303-21	SWITCH, TACTILE (11)	
S830	1-554-303-21	SWITCH, TACTILE (16)	
S831	1-554-303-21	SWITCH, TACTILE (17)	
S832	1-554-303-21	SWITCH, TACTILE (12)	
S833	1-554-303-21	SWITCH, TACTILE (7)	
S834	1-554-303-21	SWITCH, TACTILE (▷)	
S835	1-554-303-21	SWITCH, TACTILE (⏏ OPEN/CLOSE)	
S836	1-554-303-21	SWITCH, TACTILE (❚❚)	
S837	1-554-303-21	SWITCH, TACTILE (■)	
S838	1-554-303-21	SWITCH, TACTILE (⏮◁)	
S839	1-554-303-21	SWITCH, TACTILE (▷▷⏭)	
S840	1-554-303-21	SWITCH, TACTILE (▶▶⏭)	
S841	1-554-303-21	SWITCH, TACTILE (⏮◀)	
		< VIBRATOR >	
X801	1-577-082-11	VIBRATOR, CERAMIC (4MHz)	
**********			
*	1-646-970-11	LOADING BOARD	
		**********	
		< CONNECTOR >	
* CN151	1-568-943-11	PIN, CONNECTOR 5P	
		< MOTOR >	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
		< SWITCH >	
S151	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S152	1-572-086-11	SWITCH, LEAF (LOAD IN)	
**********			
*	A-4673-497-A	MAIN BOARD, COMPLETE (561)	
		**********	
*	A-4673-568-A	MAIN BOARD, COMPLETE (561E)	
		**********	
*	3-309-144-21	HEAT SINK	
	7-685-871-01	SCREW +BVTT 3X6 (S)	
		< CAPACITOR >	

Ref.No.	Part No.	Description			Remark
C301	1-164-159-11	CERAMIC	0.1uF		50V
C303	1-162-306-11	CERAMIC	0.01uF	30%	16V
C304	1-161-494-00	CERAMIC	0.022uF		25V
C305	1-164-159-11	CERAMIC	0.1uF		50V
C306	1-126-962-11	ELECT	3.3uF	20%	50V
C353	1-162-290-31	CERAMIC	470PF	10%	50V
C356	1-164-159-11	CERAMIC	0.1uF		50V
C357	1-162-208-31	CERAMIC	24PF	5%	50V
C358	1-102-947-00	CERAMIC	10PF	5%	50V
C359	1-102-947-00	CERAMIC	10PF	5%	50V
C360	1-130-495-00	MYLAR	0.1uF	5%	50V
C361	1-124-572-11	ELECT	100uF	20%	63V
C392	1-164-159-11	CERAMIC	0.1uF		50V
C401	1-104-665-11	ELECT	100uF	20%	16V
C402	1-164-159-11	CERAMIC	0.1uF		50V
C403	1-124-122-11	ELECT	100uF	20%	50V
C404	1-130-495-00	MYLAR	0.1uF	5%	50V
C405	1-130-495-00	MYLAR	0.1uF	5%	50V
C406	1-130-495-00	MYLAR	0.1uF	5%	50V
C407	1-130-495-00	MYLAR	0.1uF	5%	50V
C408	1-164-159-11	CERAMIC	0.1uF		50V
C409	1-107-611-11	MICA	100PF	5%	500V
C410	1-102-816-00	CERAMIC	120PF	5%	50V
C411	1-102-816-00	CERAMIC	120PF	5%	50V
C412	1-106-343-00	MYLAR	1000PF	5%	200V
C413	1-130-484-00	MYLAR	0.012uF	5%	50V
C414	1-130-495-00	MYLAR	0.1uF	5%	50V
C415	1-124-910-11	ELECT	47uF	20%	50V
C501	1-104-665-11	ELECT	100uF	20%	16V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-124-122-11	ELECT	100uF	20%	50V
C504	1-130-495-00	MYLAR	0.1uF	5%	50V
C505	1-130-495-00	MYLAR	0.1uF	5%	50V
C506	1-130-495-00	MYLAR	0.1uF	5%	50V
C507	1-130-495-00	MYLAR	0.1uF	5%	50V
C508	1-164-159-11	CERAMIC	0.1uF		50V
C509	1-107-611-11	MICA	100PF	5%	500V
C510	1-102-816-00	CERAMIC	120PF	5%	50V
C511	1-102-816-00	CERAMIC	120PF	5%	50V
C512	1-106-343-00	MYLAR	1000PF	5%	200V
C513	1-130-484-00	MYLAR	0.012uF	5%	50V
C514	1-130-495-00	MYLAR	0.1uF	5%	50V
C515	1-124-910-11	ELECT	47uF	20%	50V
C910	1-107-611-11	MICA	100PF	5%	500V
C911	1-124-572-11	ELECT	100uF	20%	63V
C915	1-124-907-11	ELECT	10uF	20%	50V
C920	1-162-294-31	CERAMIC	0.001uF	10%	50V
C921	1-126-962-11	ELECT	3.3uF	20%	50V
C922	1-164-159-11	CERAMIC	0.1uF		50V
C923	1-161-494-00	CERAMIC	0.022uF		25V
C930	1-124-360-00	ELECT	1000uF	20%	16V
C931	1-124-523-11	ELECT	4700uF	20%	16V
C932	1-104-665-11	ELECT	100uF	20%	16V
C935	1-124-910-11	ELECT	47uF	20%	50V
C937	1-130-495-00	MYLAR	0.1uF	5%	50V
C939	1-124-916-11	ELECT	22uF	20%	63V

MAIN

Ref.No.	Part No.	Description				Remark
C941	1-126-052-11	ELECT	100uF	20%	50V	
C942	1-124-120-11	ELECT	220uF	20%	25V	
C943	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C944	1-130-495-00	MYLAR	0.1uF	5%	50V	
		< CONNECTOR >				
CN301	1-750-428-11	CONNECTOR, FFC/FPC 23P				
CN302	1-750-426-11	CONNECTOR, FFC/FPC 21P				
* CN304	1-750-416-11	CONNECTOR, FFC/FPC 11P				
		< DIODE >				
D301	8-719-921-40	DIODE	MTZJ-4.7C			
D302	8-719-815-85	DIODE	1S1585			
D303	8-719-815-85	DIODE	1S1585			
D910	8-719-200-82	DIODE	11ES2			
D911	8-719-815-85	DIODE	1S1585			
D912	8-719-982-15	DIODE	MTZJ-27B			
D913	8-719-110-03	DIODE	RD7.5ESB2			
D930	8-719-210-21	DIODE	11EQS04			
D931	8-719-210-21	DIODE	11EQS04			
D932	8-719-210-21	DIODE	11EQS04			
D933	8-719-210-21	DIODE	11EQS04			
D934	8-719-815-85	DIODE	1S1585			
D935	8-719-921-40	DIODE	MTZJ-4.7C			
D936	8-719-815-85	DIODE	1S1585			
D937	8-719-115-38	DIODE	RD5.1JS-T1B2			
		< IC >				
IC301	8-759-822-09	IC	LB1641			
IC303	8-759-287-70	IC	CXD8505Q			
IC304	8-759-710-59	IC	NJM4580D-D			
IC305	8-749-921-12	IC	GP1F32T			
IC401	8-759-712-02	IC	NJM2114D			
IC501	8-759-712-02	IC	NJM2114D			
IC920	8-759-636-16	IC	M51957AL			
IC930	8-759-710-59	IC	NJM4580D-D			
IC931	8-759-710-59	IC	NJM4580D-D			
		< JACK >				
J301	1-569-443-21	JACK, PIN 4P (LINE OUT)(FIXD, VARIABLE)				
		< COIL >				
L301	1-410-322-11	INDUCTOR	3.3uH			
L302	1-410-322-11	INDUCTOR	3.3uH			
L303	1-410-503-11	INDUCTOR	3.3uH			
		< TRANSISTOR >				
Q301	8-729-900-65	TRANSISTOR	DTA144ES			
Q401	8-729-231-55	TRANSISTOR	2SC2878-AB			
Q403	8-729-231-55	TRANSISTOR	2SC2878-AB (561)			
Q404	8-729-900-65	TRANSISTOR	DTA144ES (561)			
Q501	8-729-231-55	TRANSISTOR	2SC2878-AB			
Q503	8-729-231-55	TRANSISTOR	2SC2878-AB (561)			
Q504	8-729-900-65	TRANSISTOR	DTA144ES (561)			
Q910	8-729-019-64	TRANSISTOR	2SB1041			
Q911	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q920	8-729-900-89	TRANSISTOR	DTC144ES			
Q930	8-729-104-18	TRANSISTOR	2SC3514-Q			
Q931	8-729-900-89	TRANSISTOR	DTC144ES			
Q932	8-729-900-65	TRANSISTOR	DTA144ES			
Q933	8-729-021-82	TRANSISTOR	2SD2396K			
Q934	8-729-021-82	TRANSISTOR	2SD2396K			
		< RESISTOR >				
R300	1-249-415-11	CARBON	680	5%	1/4W	F
R301	1-249-417-11	CARBON	1K	5%	1/4W	F
R302	1-249-417-11	CARBON	1K	5%	1/4W	F
R303	1-249-417-11	CARBON	1K	5%	1/4W	F
R304	1-249-417-11	CARBON	1K	5%	1/4W	F
R305	1-249-415-11	CARBON	680	5%	1/4W	F
R306	1-247-895-00	CARBON	470K	5%	1/4W	
R308	1-249-429-11	CARBON	10K	5%	1/4W	
R312	1-249-417-11	CARBON	1K	5%	1/4W	F
R313	1-247-815-91	CARBON	220	5%	1/4W	
R314	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R317	1-249-441-11	CARBON	100K	5%	1/4W	
R401	1-249-435-11	CARBON	33K	5%	1/4W	
R402	1-249-435-11	CARBON	33K	5%	1/4W	
R403	1-249-435-11	CARBON	33K	5%	1/4W	
R404	1-249-435-11	CARBON	33K	5%	1/4W	
R405	1-249-432-11	CARBON	18K	5%	1/4W	
R406	1-249-432-11	CARBON	18K	5%	1/4W	
R407	1-247-863-91	CARBON	22K	5%	1/4W	
R408	1-247-863-91	CARBON	22K	5%	1/4W	
R409	1-247-830-11	CARBON	910	5%	1/4W	
R410	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R411	1-247-891-00	CARBON	330K	5%	1/4W	
R412	1-247-815-91	CARBON	220	5%	1/4W	(561)
R412	1-249-414-11	CARBON	560	5%	1/4W	F (561E)
R413	1-247-815-91	CARBON	220	5%	1/4W	(561)
R414	1-249-393-11	CARBON	10	5%	1/4W	F (561)
R415	1-247-807-31	CARBON	100	5%	1/4W	(561E)
R415	1-247-815-91	CARBON	220	5%	1/4W	(561)
R416	1-247-815-91	CARBON	220	5%	1/4W	
R417	1-249-425-11	CARBON	4.7K	5%	1/4W	F (561)
R418	1-249-441-11	CARBON	100K	5%	1/4W	(561)
R419	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R420	1-247-826-00	CARBON	620	5%	1/4W	
R451	1-249-435-11	CARBON	33K	5%	1/4W	
R452	1-249-435-11	CARBON	33K	5%	1/4W	
R453	1-249-429-11	CARBON	10K	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R454	1-249-435-11	CARBON	33K	5%	1/4W	
R455	1-249-402-11	CARBON	56	5%	1/4W	F
R501	1-249-435-11	CARBON	33K	5%	1/4W	
R502	1-249-435-11	CARBON	33K	5%	1/4W	
R503	1-249-435-11	CARBON	33K	5%	1/4W	
R504	1-249-435-11	CARBON	33K	5%	1/4W	
R505	1-249-432-11	CARBON	18K	5%	1/4W	
R506	1-249-432-11	CARBON	18K	5%	1/4W	
R507	1-247-863-91	CARBON	22K	5%	1/4W	
R508	1-247-863-91	CARBON	22K	5%	1/4W	
R509	1-247-830-11	CARBON	910	5%	1/4W	
R510	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R511	1-247-891-00	CARBON	330K	5%	1/4W	
R512	1-247-815-91	CARBON	220	5%	1/4W	(561)
R512	1-249-414-11	CARBON	560	5%	1/4W	F (561E)
R513	1-247-815-91	CARBON	220	5%	1/4W	(561)
R514	1-249-393-11	CARBON	10	5%	1/4W	F (561)
R515	1-247-807-31	CARBON	100	5%	1/4W	(561E)
R515	1-247-815-91	CARBON	220	5%	1/4W	(561)
R516	1-247-815-91	CARBON	220	5%	1/4W	
R517	1-249-425-11	CARBON	4.7K	5%	1/4W	F (561)
R518	1-249-441-11	CARBON	100K	5%	1/4W	(561)
R519	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R520	1-247-826-00	CARBON	620	5%	1/4W	
R541	1-249-435-11	CARBON	33K	5%	1/4W	
R542	1-249-435-11	CARBON	33K	5%	1/4W	
R543	1-249-429-11	CARBON	10K	5%	1/4W	
R544	1-249-435-11	CARBON	33K	5%	1/4W	
R545	1-249-402-11	CARBON	56	5%	1/4W	F
R910	1-249-390-11	CARBON	5.6	5%	1/4W	F
R911	1-249-390-11	CARBON	5.6	5%	1/4W	F
R912	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R913	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R915	1-249-429-11	CARBON	10K	5%	1/4W	
R916	1-249-438-11	CARBON	56K	5%	1/4W	
R917	1-247-863-91	CARBON	22K	5%	1/4W	
R920	1-249-436-11	CARBON	39K	5%	1/4W	
R921	1-249-431-11	CARBON	15K	5%	1/4W	
R922	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R930	1-249-411-11	CARBON	330	5%	1/4W	
R931	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R932	1-249-436-11	CARBON	39K	5%	1/4W	
R933	1-247-807-31	CARBON	100	5%	1/4W	
R934	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R935	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R937	1-249-417-11	CARBON	1K	5%	1/4W	F
R938	1-247-807-31	CARBON	100	5%	1/4W	
R939	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R940	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R941	1-249-428-11	CARBON	8.2K	5%	1/4W	F

Ref.No.	Part No.	Description				Remark
R942	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R943	1-249-425-11	CARBON	4.7K	5%	1/4W	F
		< TRANSFORMER >				
⚠T901	1-449-925-11	TRANSFORMER, POWER				
		< VIBRATOR >				
X301	1-579-161-11	VIBRATOR, CRYSTAL (45.1584MHz)				
**********						
*	1-655-761-11	MVR BOARD				
		*********				
		< CAPACITOR >				
C351	1-124-443-00	ELECT	100uF	20%	10V	
C352	1-161-494-00	CERAMIC	0.022uF		25V	
C471	1-164-159-11	CERAMIC	0.1uF		50V	
C472	1-164-159-11	CERAMIC	0.1uF		50V	
C473	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
* CN351	1-568-942-11	PIN, CONNECTOR 4P				
CN461	1-750-452-11	CONNECTOR, FFC/FPC 11P				
		< PLATE >				
* EB471	4-962-201-01	PLATE (HP), GROUND				
		< IC >				
IC351	8-759-962-08	IC BA6208				
		< JACK >				
J471	1-750-162-61	JACK (LARGE TYPE)(PHONES)				
		< RESISTOR >				
R352	1-249-417-11	CARBON	1K	5%	1/4W	F
R353	1-249-417-11	CARBON	1K	5%	1/4W	F
		< VARIABLE RESISTOR >				
RV461	1-223-875-11	RES, VAR, CARBON 10K/10K (LINE OUT, PHONE LEVEL)				
**********						
*	1-655-760-11	SW BOARD				
		********				
		< CAPACITOR >				
C851	1-161-494-00	CERAMIC	0.022uF		25V	
C852	1-161-494-00	CERAMIC	0.022uF		25V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SW TRANSFORMER

Ref.No.	Part No.	Description	Remark
		< IC >	
IC851	8-741-810-59	IC SBX1810-59	
		< SWITCH >	
S851	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	
**********			
*	1-655-758-11	TRANSFORMER BOARD	
		**********	
		< CAPACITOR >	
C991	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
CN991	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN992	1-564-510-11	PLUG, CONNECTOR 7P	
		< PLATE >	
* EB991	4-962-200-01	PLATE (TR), GROUND	
**********			
		MISCELLANEOUS	
		**********	
3	1-751-947-11	WIRE (FLAT TYPE) (21 CORE)	
7	1-751-712-11	WIRE (FLAT TYPE) (11 CORE)	
58	1-696-760-11	WIRE (FLAT TYPE) (23 CORE)	
⚠62	1-575-651-21	CORD, POWER (561)	
⚠62	1-696-907-11	CORD, POWER (561E)	
⚠151	8-848-367-11	OPTICAL PICK-UP BLOCK KSS-213BA/F-N	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
J471	1-750-162-61	JACK (LARGE TYPE) (PHONES)	
M101	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
RV461	1-223-875-11	RES, VAR, CARBON 10K/10K	(LINE OUT, PHONE LEVEL)
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
S151	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S152	1-572-086-11	SWITCH, LEAF (LOAD IN)	
⚠T901	1-449-925-11	TRANSFORMER, POWER	
**********			

Ref.No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-473-125-11	REMOTE COMMANDER (RM-D820)	
	1-590-925-31	CORD, CONNECTION (AUDIO 100cm)	
	3-759-994-51	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, SWEDISH) (561:AEP/561E)	
	3-759-994-61	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN, PORTUGUESE) (561:AEP)	
	3-759-994-71	MANUAL, INSTRUCTION (GERMAN) (561:G)	
	4-941-925-02	CUSHION	
	4-962-615-01	COVER, BATTERY (for RM-D820)	
*	4-973-638-11	INDIVIDUAL CARTON (561)	
*	4-973-638-21	INDIVIDUAL CARTON (561E)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-682-548-09	SCREW +BVTT 3X8 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-871-01	SCREW +BVTT 3X6 (S)	
#4	7-621-255-15	SCREW +P 2X3	
#5	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	

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9-960-264-11

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Consumer A&V Products Company
Home A&V Products Div.

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